



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/715,957

11/17/2003

Jiro Moriyama

CFA00047US

4447

34904

7590

07/11/2006

CANON U.S.A. INC. INTELLECTUAL PROPERTY DIVISION
15975 ALTON PARKWAY
IRVINE, CA 92618-3731

EXAMINER

GARCIA JR, RENE

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,957

Applicant(s)

MORIYAMA ET AL.

Examiner

Rene Garcia, Jr.

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 20 April 2006 has been entered.

Claim Objections

2. Claims 1, 10, 11, 12 and 13 are objected to as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regards to amended part of claims "wherein the positional information image can arbitrarily be recorded on the recording medium", the use of "can" is open to interpretation. The use of the word "can" allows for the information image either being recorded or not being recorded, therefore making it indefinite.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Directed to a [computer] program, per se, lacking storage on a computer readable medium which enables any underlying functionality to occur (i.e. code stored on computer readable storage medium or computer readable storage medium storing code).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2 & 4-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Silverbrook et al. (US 2002/0080396).

Silverbrook et al. disclose the following:

*regarding claims 1 & 10, recording apparatus **/netpage printer, 601/** (fig. 11) and method for forming an image on a recording medium/**netpage, 1/** (fig. 1; paragraph 0216 see also paragraphs 0148 and 0218), comprising:

*recording means/**print engine controllers, 760/** (fig. 14; paragraph 0554) for performing recording by applying a recording material/**ink/** (paragraph 0243) onto the recording medium/**1/** (fig. 1), the recording means/**760/** recording at least one of a positional information image/**coded data, 3/** representing positional information (paragraph 0158; x & y coordinates) corresponding to the position where the positional information image/**coded data, 3/** is recorded and the image/**graphic data, 2/** (fig. 1; paragraph 0129)

*control means/**processor, 750/** (fig. 14; paragraphs 0552 & 0553) for controlling the recording (paragraph 0220) such that the recording means/**760/** records the positional information image with a recording material/**infrared inks, IR-absorptive black ink/** capable of being detected by a predetermined detector/**netpage pen, 101/** (figs. 8 & 9; paragraph 0255), and the image with another recording material/**inks/** (paragraph 0243; cyan, magenta, yellow, black)

Art Unit: 2853

incapable of being detected by the detector/**netpage pen, 101/** (paragraph 0151 – cyan, magenta, yellow, black are non-infrared emitting)

*wherein the positional information image can arbitrarily be recorded on the recording medium (paragraph 0157 – examiner asserts that the use of “can” allows for it either recording or not recording, therefore the position of it not being arbitrarily is taken)

*regarding claim 2, recording material/**infrared inks, IR-absorptive black ink/** used for recording the positional information image/**coded data, 3/** contains carbon (paragraphs 0584 – 0592; infrared dyes/**ink/** contain carbon atoms), and the recording material (paragraph 0243; cyan, magenta, yellow, black) used for recording the image/**graphic data, 2/** is carbon-free (fig. 1)

*regarding claim 4, recording material for the positional information image/**coded data, 3/** (fig. 1, paragraph 0129) is black/**IR-absorptive black ink/** (paragraph 0223), and the recording material for the image/**graphic data, 2/** (fig. 1, paragraph 0129) is a plurality of recording materials/**inks/** capable of recording a color image (paragraph 0243)

*regarding claim 5, plurality of recording materials/**inks/** correspond to a plurality of colors including yellow, magenta, and cyan (paragraph 0243)

*regarding claim 6, plurality of recording materials/**inks/** have a plurality of colors including yellow, magenta, cyan, and black (paragraph 0243)

*regarding claim 7, positional information image/**coded data, 3/** (fig. 1) is expressed by a combination pattern of a plurality of spots to represent the positional information (figs. 6a, 6b & 6c)

*regarding claim 8, positional information/**coded data, 3/** is associated with coordinates on the recording medium/**netpage, 1/** (fig. 1; paragraph 0159; x & y coordinates)

*regarding claim 9, positional information/**coded data, 3/** is associated with coordinates on a virtual plane beyond the area of the recording medium/**netpage, 1/** (fig. 1; paragraph 0149; multiple pages can have same positional data & each page has unique page ID since recording medium is considered to be one page; paragraph 0157 – region to which a tag [tag ID – positional information] refers can be an arbitrary subregion of a page or other surface [virtual plane])

*regarding claim 11, recording medium/**netpage, 1/** (fig. 1) including:

*pattern image/**coded data, 2/** (figs. 1 & 6a, 6b, 6c; paragraph 0129) designating positions (paragraph 0158; x & y coordinates) at least thereon, the pattern image being/**2/** recorded by applying a first recording material/**ink/** capable of being detected by a predetermined detector/**netpage pen, 101/** (figs. 8 & 9; paragraph 0255)

Art Unit: 2853

*image/**graphic data, 2/** (fig. 1; paragraph 0129), different from the pattern image, recorded by applying a second recording material incapable of being detected by the detector/**101/**

*wherein the pattern image can arbitrarily be recorded on the recording medium (paragraph 0157 – examiner asserts that the use of “can” allows for it either recording or not recording, therefore the position of it not being arbitrarily is taken)

*regarding claim 12, recording system comprising (fig. 14 – printer controller):

*recording apparatus/**netpage printer, 601/** (fig. 11) for performing recording by applying a recording material/**ink/** onto a recording medium/**netpage,1/** (fig. 1) according to image data, the recording apparatus/**601/** recording positional information representing positions/**coded data, 3/** (fig. 1; paragraph 0129 & 0158) on at least the recording medium/**1/** and the image data/**graphic data, 2/** (fig. 1), the recording apparatus/**601/** including control means/**processor, 750/** (fig. 14; paragraphs 0552 & 0553) for controlling recording such that the positional information/**3/** is recorded with a recording material capable of being detected by a predetermined detector/**netpage pen, 101/** (figs. 8 & 9; paragraph 0255), and the image data/**graphic data, 2/** (fig. 1) is recorded with a recording material incapable of being detected by the detector/**101/** (paragraph 0151 – cyan, magenta, yellow, black are non-infrared emitting)

*transmitting apparatus/**print controller, 656/** (fig. 15) for transmitting the image data to the recording apparatus/**netpage printer, 601/** (fig. 11), the transmitting apparatus including image data preparation means/**DSPs, 757/** (fig. 14; paragraph 0563) and image data transmission means/**IEEE 1394 Serial Interface, 659/** (fig. 14; paragraph 0569)

Art Unit: 2853

*wherein the positional information image can arbitrarily be recorded on the recording medium (paragraph 0157 – examiner asserts that the use of “can” allows for it either recording or not recording, therefore the position of it not being arbitrarily is taken)

*regarding claim 13, program for controlling/**software/** (paragraph 0556) a recording apparatus/**netpage printer, 601/** (fig. 11) for recording an image by applying a recording material/**ink/** (paragraph 0243) onto a recording medium/**netpage, 1/** (fig.1), the program performing:

*recording (paragraph 0567), on the recording medium, positional information image/**coded data, 3/** corresponding to positional information representing positions (paragraph 0158; x & y coordinates) on at least the recording medium/**1/** and the image/**graphic data, 3/** (fig. 1; paragraph 0129; paragraph 0220 – printing of combination of data)

*controlling (paragraph 0571) the recording such that the positional information image is recorded with a recording material/**infrared inks, IR-absorptive black ink/** capable of being detected by a predetermined detector/**netpage pen, 101/** (figs. 8 & 9; paragraph 0255), and the other image/**3/** is recorded with another recording material/**ink/** incapable of being detected by the detector/**101/** (paragraph 0151 – ink: cyan, magenta, yellow, black are non-infrared emitting)

*wherein the positional information image can arbitrarily be recorded on the recording medium (paragraph 0157 – examiner asserts that the use of “can” allows for it either recording or not recording, therefore the position of it not being arbitrarily is taken)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. (US PGPub 2002/0080396) in view of Tan et al. (US 6,613,403).

Silverbrook et al. disclose all of the claimed limitations except for the following:

*regarding claim 3, recording material used for recording the positional information image comprises one of a pigment ink containing carbon and a dye ink containing carbon, and the recording material used for recording the image comprises one of a carbon-free pigment ink and a carbon-free dye ink

*Silverbrook et al. did not expressly specify which recording material/**ink**/ to utilize

Tan et al. does not disclose the following:

*regarding claim 3, recording material/**ink**/ used for recording the positional information image comprises one of a pigment ink containing carbon and a dye ink containing carbon, and the recording material used for recording the image comprises one of a carbon-free pigment ink and a carbon-free dye ink (col. 9, lines 7-24; allows for inks including dye or pigment and colorant is carbon-free; Tan et al. teaches using carbon free inks so not to interfere with NIRF [near infrared fluorescent] inks)

Silverbrook et al. and Tan et al. are analogous art because they are directed to a

Art Unit: 2853

similar problem solving area of recording material/**ink**/ detection and recording material lack of detection.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize a recording material of dye and pigment containing carbon; and recording material of dye and pigment being carbon-free as taught by Tan et al. into Silverbrook et al. for the purpose of ink detection and lack of detection based on specific properties (infrared detection).

Response to Arguments

8. Applicant's arguments filed 20 April 2006 have been fully considered but they are not persuasive. Applicant's argument on page 10, first paragraph, that Silverbrook et al. (US 2002/0080396) does not describe recording positional information that can be arbitrarily recorded is disagreed with. Silverbrook et al. teaches in paragraph 0157 the claimed limitation. It is also noted the use of the term "can" is indefinite, allowing for the recording to either occur or not occur.

Examiner disagrees with applicant's arguments on page 10, third paragraph that Silverbrook et al. does not suggest the tags [individual or combination of tags] form a positional information image when recorded on the recording medium. Paragraph 0148 –0152 provide basis for the tags or tags forming a positional information image by being printed on a page with invisible ink.

As presented above Silverbrook et al. does teach/suggest the limitations (claims 1, 2 & 4-13) as presented in the instant application and Silverbrook et al. in combination with Tan et al. (US 6,613,403) does teach/suggest the limitations with respect to claim 3.

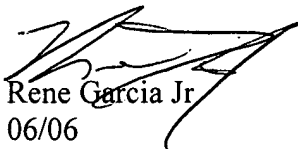
Art Unit: 2853


Communications with the USPTO

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rene Garcia, Jr. whose telephone number is (571) 272-5980. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Rene Garcia Jr
06/06

 7/3/06
MANISH S. SHAH
PRIMARY EXAMINER